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65400 7590 05/16/2007 KIRTON & MCCONKIE 1800 EAGLE GATE TOWER / 60 EAST SOUTH TEMPLE P.O. BOX 45120 SALT LAKE CITY, UT 84145-0120			EXAMINER PRICE, NATHAN E	
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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 09/924,136
Filing Date: August 07, 2001
Appellant(s): SCHWALB, EDDIE M.

MAILED

MAY 16 2007

Technology Center 2100

Michael F. Krieger
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 16 January 2007 appealing from the
Office action mailed 28 June 2006.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

6,635,089 B1	Burkett et al.	10-2003
5,982,445	Eyer et al.	11-1999

Wugofski, Ted. "A Modular Hypertext Markup Language for Broadcast Applications." 1 October 1998, Draft #4, Over the Moon Productions / Gateway, <<http://xml.coverpages.org/bhtml-4.html>>.

Advanced Television Systems Committee, "ATSC Data Broadcast Standard (Including Amendment 1 and Corrigendum 1 and Corrigendum 2)." 26 July 2000, Doc. A/90.

Dolan, Michael A. "Report on Television Data Applications." 1 July 2001, NIST GCR 01-818.

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

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Claims 8 – 10, 12, 13 and 23 – 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wugofski (Wugofski, Ted. "A Modular Hypertext Markup Language for Broadcast Applications," 1 October 1998, Draft #4, Over the Moon Productions / Gateway, <<http://xml.coverpages.org/bhtml-4.html>>.) in view of A90 (Advanced Television Systems Committee, "ATSC Data Broadcast Standard," Doc A/90, 26 July 2000.) and Dolan (Dolan, Michael A. "Report on Television Data Applications," NIST GCR 01-818, 1 July 2001.). All three references were cited in the last Office Action.

As to claim 8, Wugofski discloses a method of providing access to one or more services within a Digital TV Application Software Environment (DASE), the method comprising:

- receiving a transport stream having content and one or more applications, wherein the one or more applications provide the one or more services within the Digital TV Application Software Environment (DASE) (section 1.1; section 4.13 "xHTML's multimedia features..."; section 6.2 "Linking in response to an event");

- using a renderer to interpret and prepare the content for rendering on a display device (sections 4.5 and 4.13.1);

- mapping at least one document (XDML addressed below) to a Document Object Model (DOM) structure, the document having at least one atomic element defined as a "tag" and the DOM having an atomic element defined as a "node" (section 6.2; Appendix E); and

using a declarative application program interface to access data (PSIP explained below), wherein the declarative application program interface comprises an application program interface module (XHTML explained below) that introduces new tags having semantics that enable HTML pages to perform an active dynamic discovery of at least one of (i) the content and (ii) the services (sections 1.1, 4.2), wherein the application program interface module (XHTML explained below) includes a rule structure for:

defining a condition within the node (Appendix E.1, "public Boolean hasChildNodes();");

upon satisfaction of the condition, realizing an action defined by the at least one tag, which action is found within the data (section 4.19; section 6.2); and

otherwise, realizing an action defined by the node (section 4.19; section 6.2).

The "tag" is an inherent feature of XHTML. Wugofski fails to specifically disclose access to PSIP data stored within at least one XHTML document. However, Dolan states that the ATSC is working on a standard for a DASE system (page 30 ¶ 2) and will use XHTML (XHTML 1.0 Traditional and Frameset subsets) (page 30 list of web technology used). It would have been obvious to one of ordinary skill in the art at the time Applicant's invention was made to combine these references because both describe designs of DASE systems.

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Also, XDMML builds on xHTML (Dolan, page 30 first item in list) and Wugofski uses xHTML in his disclosure.

Wugofski also fails to specifically disclose accessing PSIP data. However, A90 discloses that the PSIP standard is used to describe system information and program data (section 11.1). In order for the PSIP to serve this purpose (providing program guide data), there must be an ability to access the data stored in the PSIP. It would have been obvious to one of ordinary skill in the art at the time Applicant's invention was made to combine these references because both address designs for digital television. Also, Wugofski describes events in which a channel is selected (appendix G.3, "onchannelselect") and also recognizes that PSIP can be used with the disclosed technology (appendix G.3, "oneventstart").

As to claim 9, Wugofski, as modified by Dolan, discloses the step of rendering the XDMML document based on the realized action (sections 4.2 and 11.5).

As to claim 10, Wugofski fails to disclose a master guide table. However, A90 discloses that the mapping step comprises identifying all tables via a master guide table (Fig. 11.1; page 47 ¶ 5). See the rejection of claim 8 for motivation to combine.

As to claim 12, Wugofski also discloses the step of rendering the realized action for display on the display device (section 4.19).

As to claim 13, Wugofski also discloses the step of automatically and dynamically updating all referenced actions (section 4.13.2).

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As to claim 23, Wugofski also discloses that the services comprise at least one of: weather reports, interactive advertising and an interactive TV show (sections 3.1, 7.1 and 8.6).

As to claims 24 and 25, see the rejection of claim 8.

As to claim 26 – 29, see the rejection of claim 9, 12, 13 and 23.

Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wugofski in view of A90 and Dolan as applied to claim 10 above, and further in view of Burkett et al. (US 6,635,089 B1; hereinafter Burkett). Burkett was cited in the last Office Action.

As to claim 11, although Wugofski discloses tables, the reference does not specifically disclose the tables or the details of the DOM limitations as claimed. However, Burkett discloses the steps of:

- defining an object class for each table (type of structured information) identified (col. 7 lines 26 – 34; col. 8 lines 8 – 21; table further explained below);

- parsing each table (col. 8 lines 55 – 57);

- for each parsed table, constructing an object instance (col. 2 lines 44 – 55; col. 8 lines 8 – 21);

- generating a DOM root document object (col. 8 lines 43 – 57); and

- adding child nodes of the DOM root document object (col. 8 lines 43 – 57).

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Implementing the disclosure of Burkett using object-oriented programming (col. 7 lines 28 – 32) implies defining object classes. Burkett fail to specify that the objects being parsed are tables from a PSIP and therefore also fail to specify the types of objects that make up the parent and child nodes and the ID. Burkett does state that objects other than those in their disclosure can be used (col. 8 lines 15 – 17), which can include other types of structured information (col. 8 lines 8 – 10), such as the tables from a PSIP. A90 discloses the hierarchy of the tables in a PSIP and identifying event information tables based on the source ID (Fig. 11.1). It would have been obvious to one of ordinary skill in the art at the time Applicant's invention was made to combine these references because the parsing and tree generation disclosed by Burkett would be an appropriate way to implement a system that includes structured information, such as that shown in Figure 11.1 of A90, in order to preserve the hierarchy (Burkett: col. 2 lines 44 – 55).

Claims 14, 16 and 20 – 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wugofski in view of A90, Dolan and Eyer et al. (US 5,982,445; hereinafter Eyer). Eyer was cited in the last Office Action.

As to claim 14, Wugofski discloses a system that receives DASE-compliant broadcast streams containing video, audio, or data components, or any combination thereof, and renders the component(s) in a manner useful to an end user (section 1.1), the system comprising:

A declarative application program interface configured to access the data, wherein the declarative application program interface comprises an application program interface module that introduces new tags having semantics that enable HTML pages to perform an active dynamic discovery of at least one of (i) content and (ii) service of a transport stream, wherein a render is configured to interpret and prepare the content of the transport stream for rendering on an output device (sections 1.1, 4.2, 4.19).

Wugofski fails to specifically disclose a plurality of smart cards, a PSIP database and XDMML. See the rejection of claim 8 for explanation of PSIP and XDMML, including motivation to combine. Furthermore, Eyer discloses the use of smart cards in a television environment to store data (col. 9 lines 14 – 30). Eyer also discloses that the memory can include a service map and that the smart card can store the html/htvp code. It would have been obvious to one of ordinary skill in the art at the time of Applicant's invention to combine Eyer and Wugofski because both disclose television environments that use markup languages to provide content and services. Since Eyer discloses the use of a channel map, it would have been obvious to also store information about the cards that store code to which other pages can link (Eyer col. 9 lines 25 – 30).

As to claim 16, Wugofski, as modified by A90 and Dolan, also discloses means for mapping XDMML declarative applications to a Document Object Model (DOM), which is used to enable JavaScript access to the PSIP database

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(sections 6.1 and 6.2). See the rejections of claims 8 and 14 for further information regarding PSIP and XDML.

As to claim 20, Wugofski also discloses that the new tags include associated unique identification values to access content (section 4.2 "href" attribute).

As to claim 21, Wugofski discloses that the content can be generated based on user-inputs (section 4.2 "Visiting a linked resource").

As to claim 22, Wugofski also discloses that the services comprise at least one of: weather reports, interactive advertising and an interactive TV show (sections 3.1, 7.1 and 8.6).

(10) Response to Argument

Regarding claim 24, Appellant's initial argument appears to be that the references fail to teach using a declarative API (Brief page 15 ¶ 1). Examiner respectfully disagrees. Wugofski teaches that the presentation engine is declarative by stating:

T3/S17 also solicited proposals for the presentation engine (a declarative language machine). In the ensuing discussions, the specialist group was greatly divided between the two HTML-based proposals and a MHEG proposal. Unfortunately, the two sides of the HTML and MHEG debate were along industry lines, which did not bode well for reconciliation. The primary concerns of the consumer electronic manufacturers was that the HTML based proposals were too costly to implement, were less demonstrably integrated than the MHEG proposal, and forced consumer electronic manufacturer's to build Internet connectivity into all of their products.

Wugofski, section 1.1 ¶ 3.

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A90 has not been relied upon to teach a declarative API. Appellant argues that Dolan teaches declarative only systems are not suitable for providing EPGs (Brief page 15 ¶ 3). However, Dolan teaches declarative systems including teletext (sections 9.2 and 9.3) and that teletext can provide program guides (section 6.3 ¶ 4) by disclosing:

9.2 SMPTE DDE-1 (Transport A)

Transport A version of DDE-1 requires a return channel to work. Hence it has a few extra things it can do that Transport B cannot reliably do. It is declarative only, so applications that require general purpose computing cannot be done. Unlike "none", it uses a single screen so advertising and other applications requiring coupling to video can be accomplished. The applications that seem workable in some reasonable manner are:

- Teletext
- Coupons
- Gambling
- Gaming
- Home Shopping
- Inquiry
- Polling
- Plane/Train Schedules
- Weather

Dolan, section 9.2

9.3 SMPTE DDE-1 (Transport B) & ATSC DASE 1.0 (Declarative Only)

Transport B DDE-1 removes the requirement for a return channel. Thus it has a reduced application set with respect to Transport A. Since DASE DA is functionally very similar (the extra functions do not increase application support), then the list is identical. The applications that seem workable in some reasonable manner are:

- Teletext
- Coupons
- Look and Feel
- Train/Plane Schedules

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Weather

Dolan, section 9.3

The primary use of teletext is for “subtitling”, which includes closed captioning (just a form of subtitling in the native language). Using the pages and magazines, multi-lingual subtitling is possible and now becoming more popular. Other simple applications include program guides and VCR recording control. More complex applications in use are:

- Real Time Stock Quotes

- News Services, including pictures and graphics

- Travel Information:

 - Airline and Rail Schedules

 - Hotel Availability

 - Road Conditions

 - Weather Conditions

- Local Emergency Information

Dolan, section 6.3 ¶ 4.

Furthermore, A90 teaches a PSIP describing program guide data:

Program and System Information Protocol (PSIP), specified in [2] is a collection of hierarchically arranged tables for describing system information and program guide data. This standard utilizes and builds upon the PSIP Standard to select data services in the broadcast stream. This standard defines extensions to [2].

A90, section 11.1 ¶ 1.

Since A90 teaches a PSIP describing program guide data and Dolan teaches declarative systems including teletext, which can provide a program guide, the references do not teach away from the claimed invention as argued by Appellant (Brief page 16 ¶ 2).

Appellant also argues that Wugofski fails to teach active dynamic discovery (Brief page 16 ¶ 3 – page 17 ¶ 2). Examiner respectfully disagrees. When linking to a resource, the content at that resource is retrieved. At the time of linking, the current content is dynamically retrieved:

The default behavior associated with a link is the retrieval or downloading of another xHTML related resource. This behavior is commonly and implicitly obtained by selecting the link (e.g., by clicking, through the remote control, keyboard input, etc.). The EVENT element also provides a mechanism for linking in response to events.

Wugofski, section 4.2 "Visiting a linked resource".

The resource is not statically part of the file that contains the link to the resource.

With respect to claim 29, see the response to Appellant's arguments regarding claim 24.

With respect to claims 8 – 10, 12, 13, 23 and 25 – 28, see the response to Appellant's arguments regarding claim 24. In addition, Appellant argues that the references also fail to teach the claimed action will be found in the PSIP data (Brief page 18 ¶ 2 – 3). Examiner respectfully disagrees. Wugofski teaches specifying a behavior in response to a PSIP event starting or ending:

oneventstart
specifies a behavior in response to a PSIP event starting.
oneventend
specifies a behavior in response to a PSIP event ending.

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Wugofski, section G.3, "oneventstart" and "oneventend".

Furthermore, A90 teaches the PSIP contains these PSIP events:

A new table, named the Data Event Table (DET) is defined hereinafter. The purpose of the DET is twofold:

- To support the announcement of a data service in a Virtual Channel (PSIP service_type field value equal to 0x04) which does not include any audio-visual event.
- To allow separate announcement of the data service portion of an audio/video/data event (PSIP service_type field value equal to 0x02) or audio/data event (PSIP service_type field value equal to 0x03) in a Virtual Channel.

A90, section 11.3 ¶ 1.

Figure 11.1 presents the table hierarchy of the PSIP with the inclusion of DET.

A90, description of Figure 11.1.

Furthermore, Wugofski teaches a DOM can be used to include events:

The EVENT element defines a block of behaviors that respond to an event. The events that are available to the system are defined by the profile of the system. In addition, custom events can be encoded through the name attribute. This allows external procedural codes to "insert" events through the document object model (DOM) and trigger behaviors encoded in the xHTML document.

Wugofski, section 6.2 ¶ 1.

With respect to claim 11, see the response to Appellant's arguments regarding claim 8.

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With respect to claims 14, 16 and 20 – 22, see the response to Appellant's arguments regarding claim 8.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.


For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

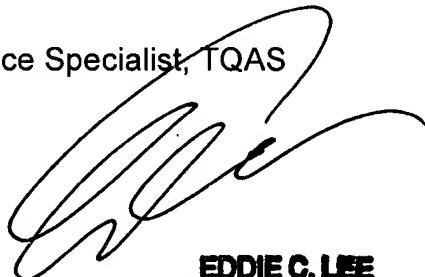
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